

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-11. (cancelled)

12. (currently amended) A pump, characterised by comprising:

an A.C. electric motor having a rotary output shaft;

first and second cylinders;

first and second pistons reciprocable rectilinearly in the respective first and second cylinders; ~~said first and second pistons being moved relative to their respective cylinders by operation of an A.C. electric motor the rotary output shaft of which is coupled to said first and second pistons by means including~~

a constant velocity cam driven by the rotary output shaft; and

first and second cam followers which, together with the constant velocity cam, couple the rotary output shaft to said first and second pistons, respectively, for mechanism converting rotary motion of the output shaft into reciprocatory motion of said first and second pistons 180° out of phase with one another;

wherein said first and second cam followers are interconnected by a spring arrangement simultaneously urging both said cam followers toward each other to engage the cam surface of said constant velocity cam; and

wherein the reciprocatory motion of said first and second pistons are free of spring action.

13. (currently amended) A pump as claimed in claim 12, wherein characterised in that said first and second pistons are axially aligned.

14. (currently amended) A pump as claimed in claim 13, characterised in that ~~said first and second axially aligned pistons cooperate with said constant velocity cam through the intermediary of respective~~ said cam followers engaging said constant velocity cam at opposite ends of a diameter of the circle of rotation of said cam.

15. (currently amended) A pump as claimed in claim 12, wherein characterised in that said cam followers are roller cam followers.

16. (canceled)

17. (currently amended) A pump as claimed in claim 12, wherein said spring arrangement comprises brackets and compression springs and characterised in that said first and second cam followers are simultaneously urged to engage the cam surface of said constant velocity cam by said compression springs.

18. (currently amended) A pump as claimed in claim 12, wherein said spring arrangement comprises tension springs and characterised in that said first and second cam followers are directly interconnected by said tension spring means—simultaneously urging both said cam followers to engage the cam surface of said constant velocity cam.

19. (currently amended) A pump as claimed in claim 12, further comprising: characterised by including
third and fourth cylinders;
a second constant velocity cam driven by said rotary output shaft; and

third and fourth axially aligned pistons reciprocable in the respective third and fourth cylinders, said third and fourth pistons being driven for reciprocatory movement 180° out of phase with one another by [[a]] said second constant velocity cam ~~driven by said A.C. motor output shaft~~, the reciprocable movement of said third and fourth pistons being 90° out of phase with the reciprocatory movement of said first and second pistons.

20. **(currently amended)** A pump as claimed in claim 19, further comprising:
a common pressure loop to which characterised in that liquid discharged from said first, second, third and fourth cylinders is to be supplied to a common pressure loop.

21. **(currently amended)** A pump as claimed in claim 12, further comprising:
characterised in that
a reduction gearbox [[is]] interposed between the output shaft of the motor and said constant velocity cam ~~or cams.~~

22. **(currently amended)** A pump as claimed in claim 12, further comprising:
characterised in that
a flywheel [[is]] incorporated in the drive transmission between the ~~A.C. motor~~ output shaft and the ~~or each~~ constant velocity cam.

23. **(currently amended)** A pump as claimed in claim 12, wherein each said piston is arranged to have a ~~relatively short~~ stroke of 30 to 80mm.

24. **(currently amended)** A pump as claimed in claim 23, wherein each said piston has a diameter of between 60 and 150 mm.

25-26. **(canceled)**

27. **(currently amended)** A liquid paint circulating pump comprising:
first and second cylinders;
first and second axially aligned pistons reciprocable rectilinearly through a stroke of between 30mm and 80mm in the respective first and second cylinders, each said piston having a diameter of between 60mm and 150mm;
an A.C. electric motor having a rotary output shaft;
a constant velocity cam coupled to said rotary output shaft;
at least a guide rail extending parallel to an axis of the axially aligned pistons; and
first and second cam followers slidable along said guide rail and coupled to said first and second pistons, respectively, for converting rotary motion of the output shaft into reciprocatory motion of said first and second pistons within their respective cylinders.

28. **(currently amended)** A liquid paint circulating pump as claimed in claim 27, wherein said first and second pistons have reciprocatory motion 180° out of phase with one another.

29. **(new)** A liquid paint circulating pump as claimed in claim 27, comprising two said guide rails on opposite sides of the axis of the axially aligned pistons;

said pump further comprising first and second cam follower sliders each of which is slidably mounted on both said guide rails and carries thereon a roller defining the respective first or second cam follower.

30. **(new)** A liquid paint circulating pump as claimed in claim 29, further comprising:
first and second captive ball joints coupling the respective first and second cam followers to the respective first and second pistons.

31. **(new)** A liquid paint circulating pump as claimed in claim 29, further comprising:

at least one tension spring connecting the first and second cam follower sliders for simultaneously urging both said cam followers toward each other to engage the cam surface of said constant velocity cam.

32. (new) A liquid paint circulating pump as claimed in claim 29, further comprising:
 - first and second brackets attached to the first and second cam follower sliders, respectively, and having first and second through bores, respectively;
 - a retaining rod extending slidably through the first and second bores and having first and second ends projecting beyond said first and second bores, respectively; and
 - first and second compression springs mounted between (i) the first and second ends of the retaining rod, respectively, and (ii) the first and second brackets, respectively, for simultaneously urging both said cam followers toward each other to engage the cam surface of said constant velocity cam.